Preventing Diseases in the Home Vegetable Garden
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1. Select transplants that are insect and disease free, "certified" when possible. Many diseases are seed borne. Use disease free western-grown seed. This is especially important to prevent bacterial (halo blight and common blight) and fungal (anthracnose) diseases of snap beans and bacterial wilt of tomatoes.

2. Do not plant same kinds of crops in the same areas year after year. Continuous culture of the same families of vegetables provides an opportunity for pathogen buildup. For example, rotate leafy vegetables with corn. It is best to grow the same or closely related plants in the same soil only once every three to five years. This practice starves out most pathogens that cause stem and leaf diseases. Unfortunately, crop rotation does not work against soilborne problems like root and crown diseases caused by the fungi Phytopthora, Rhizoctonia, Pythium, and Sclerotium and vascular wilts caused by the bacteria Pseudomonas. Some benefit can be obtained against Fusarium wilt.

Grasses	Solanaceae	Crucifers or Brassicaceae	Fabaceae	Cucurbitaceae
Corn	Tomatoes	Cabbage	Beans	Cucumbers
	Peppers	Turnips	Peas	Squash
	Eggplant	Collards		Pumpkins
	Potatoes	Broccoli		

3. Use resistant varieties where possible. For tomatoes, plant 'VFN' varieties. These letters denote resistance to Verticillium wilt, Fusarium wilt, and nematodes. There is also resistance to Stemphyllium (gray leaf spot) = S, Tobacco Mosaic Virus = T, and Alternaria stem canker =A. Better boy tomatoes have some resistance to Alternaria (Early blight). Keep a garden recordbook each year and record which vegetable varieties grow best for you in your area.

4. Space plants for good air circulation. Plant in sunny areas. Water in the morning so that wet leaves will dry before sunset. If possible, try not to wet the foliage of vegetables while watering. Free moisture on the leaves favors disease development.

5. Avoid excessive soil moisture. Overwatering enhances seed decay, damping off and root rot diseases. Avoid planting in wet, poorly drained soils.

6. Avoid excessive amounts of nitrate forms of N which encourage root rot diseases. Use ammonium forms instead.

7. Remove and destroy any crop residue from the previous

year. Turn the soil after harvest to help break down small roots and debris that may harbor nematodes, fungi and bacteria.

8. If **nematodes** are a problem, use soil solarization to reduce the number of nematodes present. This procedure involves roto-tilling the garden and then covering the area with a plastic tarp which traps solar radiation in the soil. This can raise the temperature of the soil sufficiently to kill most nematodes. In Georgia, the best time to solarize the soil is in June and July when temperatures are hot since it requires weeks of intense solar heat to be effective. On its own, repeated roto-tilling or disking in the hot and dry summer months can desiccate and kill many nematodes.
9. Marigolds may provide nematode control if grown by themselves (without weeds or other plants) on fallowed sites. They are suppressive to nematode populations, however, if allowed to produce seed they may become next year's weed problem.
10. A few rows of a trap crop around the vegetable garden (such as rye or corn) will cause aphids to feed on these first loosening the nonpersistent virus that they sometimes carry. This will help reduce the incidence of virus diseases which are sometimes severe on cucurbits and solanaceous crops and limit aphid damage.
11. Use a mulch to prevent soil from splashing on plants and to prevent fruit from touching the ground. This will help prevent rots on mature fruit such as tomatoes and squash.
12. When preparing garden beds, incorporate pine bark mulch fines or mini-nuggets into the soil until they comprise at least 1/3 of the soil medium. This will improve drainage and aeration and also appears to have a repellant effect on some nematodes.
13. If you use tobacco, wash your hands thoroughly before handling plants. This practice will prevent the spread of tobacco mosaic virus which can infect many different kinds of vegetables, particularly solanaceous crops.
14. Keep gardens weed free. They can be another source of pathogenic organisms. This will also increase air movement in gardens and decrease conditions that favor disease development.
15. Don't work in the garden when plants and soil are wet. Fungal spores and bacterial pathogens can be spread easily and cause new disease.